

III. AMENDMENTS TO THE CLAIMS

1. (CURRENTLY AMENDED) A semiconductor device, comprising:
a semiconductor chip having an active surface and an inactive surface
~~which is a surface on an disposed opposite side of~~ the active surface;
protective resin covering a sidewall of the semiconductor chip and having
a surface formed so as to be flush with ~~an the~~ inactive surface of the semiconductor
chip;
a board ~~having a surface on~~ which the semiconductor chip is mounted
~~and an opposite surface~~; and
an external connecting terminal joined to a surface of the board that is
facing away from the semiconductor chip, the external connecting terminal being
electrically connected to the active surface of the semiconductor chip,
wherein the protective resin is permanently joined to the surface of the
board and the external connecting terminal is permanently joined at the opposite
surface of the board.


2. (PREVIOUSLY AMENDED) The semiconductor device according to
claim 1, further comprising an interconnection terminal electrically connected to the
active surface of the semiconductor chip and having an exposed portion exposed to the
outside of the protective resin, the interconnection terminal being joined to the active
surface of the semiconductor chip and to a surface of the board that is facing to the
semiconductor chip, the external terminal being electrically connected to the active
surface of the semiconductor chip via the interconnection terminal.

3. (CANCELED)

4. (ORIGINAL) The semiconductor device according to claim 3, wherein the
semiconductor chip is joined to the board in a state where the active surface is opposite
to the board.

5. (ORIGINAL) The semiconductor device according to claim 3, wherein the board is a wiring board having a wiring pattern formed therein.

6. (ORIGINAL) The semiconductor device according to claim 3, wherein the board is another semiconductor chip, to constitute a chip-on-chip structure as a whole.

7. (CURRENTLY AMENDED) A semiconductor device, comprising:
a board having a mounting surface and an opposite surface;
a semiconductor chip having an active surface and an inactive surface which is a surface on the opposite side of the active surface, the semiconductor chip being joined to the board in a state where the active surface thereof is facing to the board and the inactive surface thereof is exposed;
 a protective resin covering a sidewall of the semiconductor chip and having a surface formed so as to be flush with an inactive surface of the semiconductor chip; and
an external connecting terminal joined to a surface of the board that is facing away from the semiconductor chip, the external connecting terminal being electrically connected to the active surface of the semiconductor chip.
wherein the protective resin is permanently joined to the mounting surface of the board and the external connecting terminal is permanently joined at the opposite surface of the board.

8. (ORIGINAL) The semiconductor device according to claim 7, wherein the board is a wiring board having a wiring pattern formed therein.

9. (ORIGINAL) The semiconductor device according to claim 7, wherein the board is another semiconductor chip, to constitute a chip-on-chip structure as a whole.

10. – 17. (CANCELED)

18. (CURRENTLY AMENDED) A semiconductor device, comprising:
a semiconductor chip having an active surface and an inactive surface disposed opposite the active surface;
a board having a surface on which the semiconductor chip is mounted;
an external connecting terminal ~~permanently joined to~~ at a surface of the board that is facing away from the semiconductor chip, the external connecting terminal being electrically connected to the active surface of the semiconductor chip and projecting therefrom;
an underfill resin surrounding the external connecting terminal to form an outer peripheral underfill resin surface and covering at least a portion of the active surface; and
a protective a resin covering a sidewall of the semiconductor chip and the outer peripheral underfill resin surface, the protective resin having a surface formed so as to be flush with the inactive surface of the semiconductor chip and being permanently joined to the surface on which the semiconductor chip is mounted.

19. (CURRENTLY AMENDED) A semiconductor device, comprising:
a board;
a semiconductor chip joined to the board in a state where its active surface is opposite to the board and its inactive surface which is a surface on the opposite side of the active surface is exposed;
an external connecting terminal ~~permanently joined to~~ at a surface of the board that is facing away from the semiconductor chip, the external connecting terminal being electrically connected to the active surface of the semiconductor chip and projecting therefrom;
an underfill resin surrounding the external connecting terminal to form an outer peripheral underfill resin surface and covering at least a portion of the active surface; and
a protective resin covering a sidewall of the semiconductor chip and the outer peripheral underfill resin surface, the protective resin having a surface formed so

as to be flush with the inactive surface of the semiconductor chip and being permanently joined to the surface on which the semiconductor chip is mounted.

20. (CURRENTLY AMENDED) A semiconductor device, comprising:

a semiconductor chip having a flat inactive surface and a flat opposite active surface with a sidewall extending peripherally about the semiconductor chip and between the active surface and the inactive surface;

a circuit board having a flat contacting surface disposed apart from and facially opposing the active surface of the semiconductor chip and an opposite surface;

a plurality of bumps interposed between the semiconductor chip and the circuit board for electrically connecting the active surface of the semiconductor chip and the contacting surface of the circuit board and forming a clearance among the plurality of bumps and between the active surface of the semiconductor chip and the contacting surface of the circuit board, the plurality of bumps being permanently joined at the opposite surface of the circuit board;

an underfill resin disposed between the active surface of the semiconductor chip and the contacting surface of the circuit board for filling the clearance; and

a protective resin covering an outer peripheral surface of the underfill resin and the sidewall thereby surrounding the semiconductor chip and the outer peripheral surface of the underfill resin, the protective resin being in contact with and extending from the contacting surface of the circuit board to the inactive surface of the semiconductor chip to form a protective resin surface flush with the inactive surface and being permanently joined to the flat contacting surface on which the semiconductor chip is mounted.